

## Section 822 GROUND OR CUT SHOULDER CORRUGATIONS

**822.01 Description.** Mill or diamond grind corrugations (rumble strips) into finished HMA or concrete highway shoulders. Clean the shoulder and pavement at the end of each day by an approved method.

**822.02 Materials.** None specified

**822.03 Construction.**

- A. **Equipment.** Use a rotary type cutting head with cutting tips arranged in a pattern that provides smooth cut depressions. The cutting head(s) shall be independently suspended from the power unit to allow the tool to self-align with the slope of the shoulder and irregularities in the shoulder surface. The cutting tool shall be equipped with guides to provide consistent alignment of each cut in relation to the roadway and to provide uniformity and consistency throughout the project.

Do not begin production work until demonstrating to the Engineer the ability to achieve the desired surface inside each depression without tearing or snagging the asphalt surface, or spalling the concrete surface.

- B. **Construction.** Grind or cut corrugations to the dimensions and patterns shown on Standard Plan R-112 Series. The cross slope at the bottom of the depressions must be in the same direction as the cross slope of the shoulder.

Allow 72 hours after placement of bituminous before grinding or cutting corrugations in HMA shoulders.

Prevent the grinding residue from being blown or tracked by traffic or blown by wind. Do not allow residue to flow across lanes open to traffic or into gutters or drainage structures.

**822.04 Measurement and Payment.**

Contract Item (Pay Item)	Pay Unit
Shoulder Corrugations, Ground or Cut, HMA .....	Foot
Shoulder Corrugations, Ground or Cut, Conc .....	Foot

Corrugations will be measured along the outside edge of each shoulder where corrugations are actually placed. Payment includes all materials, equipment, and labor to complete the work as described including containment or collection of grinding residue.

If corrugations are required on concrete shoulders and the method of installation is not specified on the plans or by the Engineer, they may be constructed by grinding, cutting or forming but they will not be paid for separately.